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U. S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

ORIGINAL

APR 23 1921  
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**FIELD NOTES**

OF

HOMESTEAD ENTRY SURVEY NO. 581  
And establishment of U.S. Location Monument No. 581  
SITUATED IN THE KAIBAB NATIONAL FOREST

ADMINISTRATIVE DISTRICT NO. 4  
approximately

In Section 4, unsurveyed Township 37 N., Range 3 W.,

of the

Gila and Salt River Meridian.

State of

State of Arizona.

Applicant for listing Guy May

Residence Fredonia, Arizona.

Application No. 6, dated January 1, 19 16

List No. 4-2024, dated September 22, 19 16

Applicant for survey

Residence

H. E. No., dated, 19

Land Office Phoenix.

Survey executed by W. B. Rice, Forest Examiner.  
[Forest Service Title.]

Under special instructions dated January 25, 19 19

Survey commenced June 19, 19 19

Survey completed June 20, 19 19

Under Acts of June 11, 1906 and October 1, 1918.



OATH OF ASSISTANTS

I  
 We hereby certify that we assisted W. B. Rice  
Forest Examiner in surveying all those  
 [Forest Service Title.]  
 parts or portions of Homestead Entry Survey No. 581, in the State  
 of Arizona which are represented in the following field notes  
 as having been surveyed by him and under his direction; and that said  
 survey has been in all respects, to the best of our knowledge and  
 belief, well and faithfully surveyed, and the corner monuments estab-  
 lished, according to the instructions furnished by the United States  
 Surveyor General for Arizona

John Reddy  
 (Chainman)

Subscribed and sworn to before me this 20th day of

June, 1919.

W. B. Rice,

Forest Examiner.

OATH OF SURVEYOR

I, W. B. Rice, Forest Examiner  
 [Forest Service Title.]

do solemnly swear that, in strict conformity with the special instruc-  
 tions of the United States Surveyor General for Arizona, dated  
January 25, 1919, and the laws of the United States, I have  
 well, faithfully, and truly, in my own proper person, surveyed a tract  
 of land embraced in

List, No. 4-2024, dated Sept. 22, 1916, for  
 patent, under the Act of June 11, 1906,  
 the same to be known as Homestead Entry Survey No. \_\_\_\_\_,  
 situated within the Kaibab National Forest, in  
 unsurveyed Section 4, Township 37 N., Range 3 W., and  
 surveyed Section \_\_\_\_\_, Township \_\_\_\_\_, Range \_\_\_\_\_,  
 approx.

of the Gila and Salt River meridian, Arizona, and the  
 related retracements and resurveys and section subdivisions, which are  
 represented in the following field notes as having been surveyed by me  
 and I further solemnly swear that all the corners of said survey have  
 been established and perpetuated in strict accordance with the stated  
 special instructions, and in the specific manner described in the field  
 notes, and that the following are the original field notes of such  
 survey.

W. B. Rice,

Forest Examiner  
 [Forest Service Title.]

Subscribed and sworn to before me this 17th day of

November, 1919.

Hattie R. Patterson

Notary Public.





Chains

Guy May, applicant for listing, application No. 6,  
dated January 1, 1916.

No entryman or present claimant.

Special instructions, dated January 25, 1919, for  
H.E. Survey No. 581.

Authority contained in the Acts of June 11, 1906, and  
October 1, 1918.

Claim situated approximately in unsurveyed Section 4,  
Township 37 North, Range 3 West, of the Gila  
and Salt River Meridian, Arizona, in the Kaibab  
National Forest.

Survey commenced on June 19, 1919, and executed with  
a Buff and Buff Transit No. 10800, the hori-  
zontal limb having two double verniers, placed  
opposite each other, and reading to single  
minutes of the arc.

Measurements made with a Lallie 5-chain steel tape,  
directly on the slope, and corrected to the  
horizontal by means of clinometer angles.

I examine the adjustments of the transit, finding all  
adjustments correct.

#### LATITUDE DETERMINATION

June 19, 1919; at 7 h. 43.4 m.P.M. l.m.t., at Cor.  
No. 1 of this survey, I observe the altitude  
of Polaris at lower culmination for latitude.

Longitude =  $112^{\circ} 38'$  W. (From forest diagram).

Observed altitude =  $35^{\circ} 32'$

From this observation I calculate the latitude of Cor.  
No. 1 as  $36^{\circ} 38' 26''$  N., which agrees with  
other data.

#### MERIDIAN DETERMINATION

##### OBSERVATION 1.

June 19, 1919: at cor. no. 1 of this survey, I observe



2.

Chains

the altitude of the sun for azimuth.

Latitude =  $36^{\circ} 38' 26''$  N. (From observation).

Longitude =  $112^{\circ} 38'$  W. (From forest diagram).

Time obtained by comparison with telegraphic clock,  
at Marysvale, Utah, and checked by meridional  
observation of the sun during the observation  
for latitude recorded above.

At 9 h. 35 m., A. M., apparent time.

Observed vertical angle, upper right quadrant =  $56^{\circ} 29'$ .

Observed vertical angle, lower left quadrant =  $56^{\circ} 18'$

Mean observed altitude =  $56^{\circ} 23' 30''$

Horizontal angle (from reference to right to sun) =  
 $158^{\circ} 54'$

From this observation I calculate the bearing of Cor.  
No. 7 of this survey as  $N. 55^{\circ} 57' 45''$  W., and  
to the corresponding meridian all courses of  
this survey are referred.

#### OBSERVATION 2

June 19, 1919; at Cor. No. 2 of this survey, I ob-  
serve the altitude of the sun for azimuth.

Latitude =  $36^{\circ} 38' 05''$  N. (By account from observation).

Longitude =  $112^{\circ} 39'$  W. (From forest diagram).

At 2 h. 48 m., P. M.; apparent time.

Observed vertical angle, upper left quadrant =  $52^{\circ} 17'$

Observed vertical angle, lower right quadrant =  $51^{\circ} 20'$

Mean observed altitude =  $51^{\circ} 48' 30''$

Horizontal angle (from reference to right to sun) =  
 $280^{\circ} 41' 30''$

From this observation I calculate the bearing of Cor.  
No. 3 of this survey as  $N. 19^{\circ} 57' 13''$  W.

The bearing of line 2-3 thus obtained agrees within  
 $0^{\circ} 0' 15''$  with the bearing of the same line as  
determined by projection from the solar meridian  
established by me at cor. No. 1 of this survey,



Chains

on June 19, 1919, and described above.

I therefore conclude that my meridian is correct.

ESTABLISHMENT OF U. S. LOCATING MONUMENT NO. 581.

June 19, 1919.

There being no accepted cor. of the Public survey or other established monument within two miles, I establish U.S. Locating Monument No. 581 as follows: I chisel USLM-581 and a cross (x) on the top of a limestone, in place, 10 x 10 ft., showing 4 ft. above ground and raise a mound of stone, 6 ft. base, and 4 ft. high, along side to the west. This monument is located on the south side of Snake Gulch and is plainly visible to anyone passing down the canyon. The junction of Snake Gulch and Kanab wash is about one mile to the SW. There were no cors. of the public survey, established monument, or any natural features to which this monument could be tied for the purpose of better identification. This monument is identical with Cor. No. 1 of this survey.

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Beginning at Cor. No. 1 of this survey, identical with the U.S. Locating Monument No. 581, heretofore described, a limestone in place, 10 x 10 ft., showing 4 ft. above ground, mkd. USLM-581 and a cross (x), I take the cross (x) on this monument for chaining and angle point for Cor. No. 1 of this survey, and in addition mkd. it 1-HES-581 on the west face. This rock was mkd. H-4 and witnessed by one bearing rock, although listing field notes described a small stone set in a mound of stone. I obliterate the markings on this rock for Cor. No. 4 of the listing survey,



4.

Chains	and obliterate the markings on the witness to Cor. No. 4 of the listing survey.
	A red sandstone, in place, 3 x 3 ft., showing 2 ft. above ground, bears S. 62° 26' E., 69 lks. dist.
	A limestone, in place, 9 x 5 ft., showing 3 ft. above ground, bears S. 19° 56' W., 62 lks. dist.
	Both rocks mkd. X-1-HES-581-BR.
	Latitude = 36° 38' N. ) From observation
	Longitude = 112° 38' W. ) From Forest diagram.
	Observed Magnetic Declination, 10:00 A.M., June 19, 1919 = 16° 30' E.
	Mean magnetic declination 16° 29' 30" E.
	Thence
	S. 52° 43' W.
	Over brushy land. Descend.
10.00	45 ft. below Cor. No. 1. Over level land.
32.00	Ascend.
42.50	Ridge bears N. and S., about 85 ft. above point of ascent.
	Descend.
48.25	About 55 ft. below ridge.
	Ascend.
50.75	About 50 ft. above point of ascent. Over level land
54.50	Descend.
59.00	Dry wash, course NW., about 50 ft. below point of descent.
	Ascend.
60.30	About 25 ft. above dry wash. Descend.
75.40	E. bank of Snake Wash about 55 ft. below point of descent.
76.12	West bank of Snake Wash. Over level land.
79.69	To Cor. No. 2, for which I set a limestone, 24 x 10 x 8 ins., 14 ins. in the ground, marked 2-HES-581 on the side facing the claim, and a cross (x) on the top for Cor. No. 2 of this survey. No bearings, therefore, dig pits, 24 x 24 x 12 ins., crosswise



Chains

on this and the succeeding course, 7 ft., dist., and raise a mound of earth, 4 ft. base, 2 ft. high,  $3\frac{1}{2}$  ft. dist., within the claim.

Cor. No. 5 of the listing survey, which is a limestone, firmly set, mkd. and witnessed as described by the Forest Service, bears S., 3 chs. dist. I destroy this corner and obliterate the markings and its witness.

Change in the location of this corner was made in order to keep the area of the claim within statutory limitations.

Thence

N.  $18^{\circ} 57'$  W.

Over level brushy land.

- 2.60 Edge of Kanab Wash, 40 ft. deep, bears NE. and SW.  
 3.60 Kanab Creek, 25 lks. wide, 6 ins. deep, flows SW.  
 20.30 Kanab Creek flows E.  
 24.50 Edge of Kanab Wash, 30 ft. deep bears E. and W.  
 30.60 Edge of Kanab Wash, 40 ft. deep, bears NE. and SW.  
 31.90 Kanab Creek, 25 lks. wide, 6 ins. deep, flows SW.  
 34.60 Edge of Kanab Wash, 40 ft. deep, bears NE. and SW.  
 38.03 Cor. No. 3, identical with Cor. No. 6 of the listing Survey, which is a limestone firmly set, mkd. and witnessed as described by the Forest Service, in place of which I set a limestone, 24 x 8 x 6 ins., 14 ins. in the ground, over a limestone 3 x 2 x 2 ins., mkd. with a cross (x) for Cor. No. 3 of this survey; marked 3-HES-581 on the side facing the claim, and a cross (x) on the top, and raise a mound of stone, 4 ft. base, 2 ft. high,  $3\frac{1}{2}$  ft. dist., within the claim.

No bearing objects available, pits impracticable.

I obliterate the markings on the witness to the listing



## Chains

corner which was not suitable for a bearing  
object for this survey.

June 20, 1919.

June 19, 1919.

Thence

N. 43° 42' E.

Over level land.

- 6.00 Edge of Kanab Wash, 50 ft. deep, bears N. and S.  
6.25 Kanab Creek, 25 lks. wide, 1 ft. deep, flows south,  
11.20 Kanab Creek, 50 lks. wide, 6 ins. deep, flows west.  
22.00 Kanab Creek, 50 lks. wide, 3 ins. deep, flows southeast.  
24.00 Edge of Kanab Wash. 40 ft. high, bears NW. and SE.  
27.23 To Cor. No. 4, identical with Cor. No. 7 of the list-  
ing survey, which is a red sandstone boulder  
in place, 4 x 4 ft., showing 2 ft. above ground,  
mkd. and witnessed as described by the Forest  
Service, I obliterate the markings on this  
rock for Cor. No. 7 of the listing survey and  
mk. it 4-HES-581 on the side facing the claim  
and a cross (x) on the top for Cor. No. 4 of  
this survey; and raise a mound of stone, 4 ft.  
base, 2 ft. high, 3½ ft. dist., within the claim.  
A red sandstone, in place, 4 x 4 ft., showing 4 ft.  
above ground, bears N. 63° 49' E., 33 lks. dist.  
A red sandstone, in place, 6 x 2 ft., showing 2 ft. above  
ground, bears S. 54° 22' E., 28 lks. dist.  
Both rocks mkd. X-4-HES-581-BR.  
I obliterate the markings on the witnesses to the list-  
ing corner.

Thence

S. 3° 28' E.

Over level brushy land.

- 4.60 Edge of Kanab Wash, bears NW. and SE.  
7.10 Edge of Kanab Wash, bears NE. and SW.  
9.50 Ascend.



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14.50 About 45 ft. above point of ascent.

Descend.

19.04 To Cor. No. 5, about 15 ft. below point of descent, identical with cor. No. 1 of the listing survey, which is a limestone, firmly set, mkd. and witnessed as described by the Forest Service, in place of which I set a limestone, 26 x 13x7 ins., 16 ins. in the ground, over a limestone, 4 x 2 x 2 ins., mkd. with a cross (x) for Cor. No. 5 of this survey; mkd. 5-HES-581 on the side facing the claim, and a cross (x) on the top; and raise a mount of stone, 4 ft. base, 2 ft. high, 3 1/2 ft. dist. within the claim.

A limestone, in place, 3 1/2 x 2 ft., showing 1 1/2 ft. above ground, bears N. 31° 42' E., 105 lks. dist.

A limestone, in place, 2 x 2 ft., showing 1 ft. above ground, bears N. 4° 34' E., 63 lks. dist.

Both rocks, mkd. X-5-HES-581-BT.

I obliterate the markings on the witness to the listing Cor.

Thence

N. 81° 40' E.

Over broken land. Ascend.

15.50 About 65 ft. above Cor. No. 5, Descend.

26.60 Edge of Snake Gulch, bears NE. and SW.

28.00 Edge of Snake Gulch, bears NW. and SE.

28.49 To Cor. No. 6, about 50 ft. below point of descent, for which I set a red sandstone, 30 x 16 x 8 ins., 20 ins. in the ground, over a limestone, 4 x 2 x 2 ins., mkd. with a cross (x) for Cor. No. 6 of this survey; mkd. 6-HES-581 on



## Chains

the side facing the claim, and a cross (x) on the top; and raise a mound of stone, 4 ft. base, 2 ft. high,  $3\frac{1}{2}$  ft. dist., within the claim.

A red sandstone, in place, 7 x 6 ft., showing 5 ft. above ground, bears N.  $70^{\circ} 58'$  W., 80 lks, dist.

A red sandstone, in place, 8 x 4 ft., showing 4 ft. above ground, bears N.  $28^{\circ} 35'$  W., 44 lks. dist.

Both rocks mkd. X-6-HES-581-BR.

Cor. No. 2 of the listing survey, which is a sandstone boulder, in place, 8 x 5 ft., showing 5 ft. above ground, mkd. and witnessed as described by the Forest Service, bears N. 10 lks. dist.

I destroy the markings on this stone and on its witnesses.

A slight change in the position of this cor. was made in order to get a better location.

Thence

N.  $57^{\circ} 52'$  E.

Over level land.

23.75

To Cor. No. 7, identical with Cor. No. 3 of the listing survey, which is a sandstone, firmly set, mkd. and witnessed as described by the Forest Service, in place of which I set a limestone, 24 x 12 x 6 ins., 14 ins. in the ground, over a limestone, 4 x 4 x 2 ins., mkd. with a cross (x) for Cor. No. 7 of this survey; mkd. 7-HES-581 on the side facing the claim, and a cross (x) on the top; and raise a mound of stone, 4 ft. base, 2 ft. high,  $3\frac{1}{2}$  ft. dist., within the claim.

A limestone, in place, 15 x 15 ft., showing 6 ft. above ground, bears S.  $69^{\circ} 41'$  E., 126 lks. dist.



HOMESTEAD ENTRY SURVEY NO. 581

KAIBAB NATIONAL FOREST

STATE OF ARIZONA

Chains

mkd. X-7-HES-581-BR.

No other bearing objects available, pits impracticable.

I obliterate the markings on the witness to the listing cor.

Thence

S. 55° 58' E.

Over level bottom land.

3.24 North bank of Snake Wash, bears NE. and SW.

3.90 South bank of Snake Wash, bears NE. and SW.

9.10 To Cor. No. 1, the place of beginning.

June 20, 1919.

AREA

Area of H. E. Survey No. 581 = 158.06 acres.

IMPROVEMENTS

There are no improvements of any kind on this claim.

DESCRIPTION

This claim lies on level bottom land at the junction of Snake Gulch and Kanab Wash. The soil is sandy loam. No timber of any kind on the claim. No mineral or indications of mineral. No cultivation. There is water in Kanab Wash available for the irrigation of this claim, but large expense would have to be incurred in order to raise the water out of Kanab wash, which has banks averaging from 40 to 50 ft. in height. Fredonia, Arizona, the nearest postoffice, lies about 50 miles by trail and road to the north. Marysvale, Utah, the nearest accessible railroad point, lies about 200 miles by trail and road to the North. There are no adjoining or nearby claims.



Chains

No officer qualified to administer the oath being available, the final affidavit of the assistant is made before the surveyor in his official capacity.

June 20, 1919.

*W. B. Rice.*

Forest Examiner.



Chains

COMPUTATION SHEET - DIRECT SOLARS

Observation at Cor. No. 1 for bearing of line 1-7.

$$\text{Cos. Azm.} = \frac{\text{Sin. decl.}}{\text{Cos. Lat.} \times \text{Cos. V.}} - (\text{Tan. Lat.} \times \text{Tan V}).$$

Latitude = 36° 38' 26" N. (From observation).

Longitude = 112° 38' W. (From forest diagram).

June 19, 1919.

At 9 h. 35 m., A.M., apparent time.

Declination = 23° 25' 20" N.

Observed vertical angle, upper right quadrant = 56° 29'

Observed vertical angle, lower left quadrant = 56° 18'.

Mean observed vertical angle = 56° 23' 30"

Refrac. in zenith dist. = 0° 0' 38"

True vertical angle (V) = 56° 22' 52"

Cos. Azm. = 0.89476 - 1.11885 = - 0.22389.

Azm. Sun = S. 77° 03' 45" E.

Horizontal angle (from reference to right to sun) =  
158° 54'.

Bearing of line 1-7 = N. 55° 57' 45" W.

OBSERVATION 2

At Cor. No. 2 for bearing of line 2-3.

Latitude = 36° 38' 03" N. (By account from observation).

Longitude = 112° 39' W. (From forest diagram).

June 19, 1919.

At 2 h. 48 m., P.M., apparent time.

Declination = 23° 25' 36" N.

Observed vertical angle, upper left quadrant = 52° 17'

Observed vertical angle, lower right quadrant = 51° 20'

Mean observed vertical angle = 51° 48' 30"

Refrac. in zenith dist. = 0' 45"

True vertical angle (V) = 51° 47' 45"



HOMESTEAD ENTRY SURVEY NO. 581

KAIBAB NATIONAL FOREST

STATE OF ARIZONA

Chains

Cos. Azm. = 0.80109 - 0.94479 = -0.14370.

Azm. Sun = S. 81° 44' 17" W.

Horizontal angle (from reference to right to sun) =

280° 41' 30".

Bearing of line 2-3 = N. 18° 57' 13" W.



HOMESTEAD ENTRY SURVEY NO. 581

KAIBAB NATIONAL FOREST

STATE OF ARIZONA

Chains

COMPUTATION SHEET

Polaris at lower culmination.

Observation for latitude at Cor. No. 1.

June 19, 1919.

Longitude =  $112^{\circ} 38' W.$  (From forest diagram).

Latitude = True vertical angle +  $90^{\circ}$  - declination.

Declination =  $88^{\circ} 52' 14''$

Observed vertical angle =  $35^{\circ} 32'$

Refrac. in zenith dist. =  $01' 20''$

True vertical angle =  $35^{\circ} 30' 40''$

Latitude =  $35^{\circ} 30' 40'' + 90^{\circ} - 88^{\circ} 52' 14'' = 36^{\circ} 38'$

$26'' N.$











APPROVAL

Office of the United States Surveyor General,

Phoenix, Arizona, April 30 , 1921.


The foregoing field notes of Homestead Entry Survey No.

581

executed by W. B. Rice, Forest Examiner

[Forest Service Title.]

under his special instructions, dated January 25 , 1919, having  
been critically examined, and the necessary corrections and explanations  
made, the said field notes, and the surveys they describe, are hereby  
approved.



U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the  
above-described survey in the State of Arizona , has been  
correctly copied from the original notes on file in this office.

Frank P. Trott

U. S. Surveyor General.